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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,847

08/26/2003

Mark H. Machina

APTI:066

3853

37013 7590 11/19/2007
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EXAMINER

CLEMENT, MICHELLE RENEE

ART UNIT

PAPER NUMBER

3641

MAIL DATE

DELIVERY MODE

11/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection as necessitated by applicant's amendments.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 5-10, 12, 13 and 18-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Taylor (US Patent # 2,044,819). Taylor discloses a projectile that can be fired from a firing device comprising; a hub (reference 15) and a body (reference 5) extending from the hub, wherein the hub and the body are rotatably joined to each other to allow the hub and the body to rotate relative to each other at different rotational velocities when fired and until the projectile impacts a target and wherein the hub and the body have the ability to engage a bore of a firing device. The hub has the ability to be broken (i.e. is frangible). The hub comprises a core and a plurality of fins (reference 19) extending outwardly from the core. The fins have the ability to break (i.e. are frangible) and have the ability to break and spread radially outwardly from the core as the hub penetrates a target. A leading portion of the fins is sloped at an angle (Figure 4). The hub and the body are rotatably joined with a bearing (reference 11). Both the hub and body engage a bore.

Art Unit: 3641

4. Claims 1, 4-10, 14, 15 and 18-22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Alford et al. (US Patent # 5,452,864). Alford et al. discloses a projectile that can be fired from a firing device comprising; a first portion and second portion extending from the first portion, wherein the first portion and second portion are rotatably joined to each other to allow the first portion and second portion to rotate relative to each other at different rotational velocities when fired and until the projectile impacts a target and wherein the first portion and second portion have the ability to engage a bore of a firing device. The first portion has the ability to be broken (i.e. is frangible). The first portion comprises a core and a plurality of fins extending outwardly from the core. The fins have the ability to break (i.e. are frangible) and have the ability to break and spread radially outwardly from the core as the hub penetrates a target. A leading portion of the fins is sloped at an angle. The first and second portions are rotatably joined with a bearing (reference 11). Both the hub and body engage a bore. In regards to claims 14, 15 and 18-22, Alford et al. discloses the apparatus comprising a firing device for firing a projectile, a cartridge has the ability of being chambered in the firing device, wherein the cartridge carries the projectile.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor as applied to claims 1 and 8 above. Although Taylor does not expressly disclose that a

Art Unit: 3641

second portion has less mass than the first portion, it is obvious from the figures that the portion containing the fins would have a mass less than the body portion and it has been held that discovering an optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3641

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michelle (Shelley) Clement/
Primary Examiner, Art Unit 3641